

# TRAITE DE COOPERATION EN MATIERE DE BREVETS

## PCT

REC'D 05 OCT 2004

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### RAPPORT D'EXAMEN PRELIMINAIRE INTERNATIONAL

(article 36 et règle 70 du PCT)

Référence du dossier du déposant ou du mandataire	<b>POUR SUITE A DONNER</b> voir la notification de transmission du rapport d'examen préliminaire international (formulaire PCT/PEA/416)	
Demande internationale No. PCT/FR 03/03404	Date du dépôt international (jour/mois/année) 18.11.2003	Date de priorité (jour/mois/année) 19.11.2002
Classification internationale des brevets (CIB) ou à la fois classification nationale et CIB F15B15/19		
Déposant SNPE et al.		

1. Le présent rapport d'examen préliminaire international, établi par l'administration chargée de l'examen préliminaire international, est transmis au déposant conformément à l'article 36.

2. Ce RAPPORT comprend 4 feuilles, y compris la présente feuille de couverture.

☐ Il est accompagné d'ANNEXES, c'est-à-dire de feuilles de la description, des revendications ou des dessins qui ont été modifiées et qui servent de base au présent rapport ou de feuilles contenant des rectifications faites auprès de l'administration chargée de l'examen préliminaire international (voir la règle 70.16 et l'instruction 607 des Instructions administratives du PCT).

Ces annexes comprennent feuilles.

3. Le présent rapport contient des indications et les pages correspondantes relatives aux points suivants :

- I ☒ Base de l'opinion
- II ☐ Priorité
- III ☐ Absence de formulation d'opinion quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle
- IV ☐ Absence d'unité de l'invention
- V ☒ Déclaration motivée selon la règle 66.2(a)(ii) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration
- VI ☐ Certains documents cités
- VII ☐ Irrégularités dans la demande internationale
- VIII ☐ Observations relatives à la demande internationale

Date de présentation de la demande d'examen préliminaire internationale 06.04.2004	Date d'achèvement du présent rapport 04.10.2004
Nom et adresse postale de l'administration chargée de l'examen préliminaire international  Office européen des brevets D-80298 Munich Tél. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Fonctionnaire autorisé Brumer, A N° de téléphone +49 89 2399-2965 

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**RAPPORT D'EXAMEN  
PRÉLIMINAIRE INTERNATIONAL**

Demande internationale n°

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5. ☐ Le présent rapport a été formulé abstraction faite (de certaines) des modifications, qui ont été considérées comme allant au-delà de l'exposé de l'invention tel qu'il a été déposé, comme il est indiqué ci-après (règle 70.2(c)) :

*(Toute feuille de remplacement comportant des modifications de cette nature doit être indiquée au point 1 et annexée au présent rapport.)*

6. Observations complémentaires, le cas échéant :

**V. Déclaration motivée selon l'article 35(2) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration**

1. Déclaration			
Nouveauté	Oui:	Revendications	1-21
	Non:	Revendications	
Activité inventive	Oui:	Revendications	1-21
	Non:	Revendications	
Possibilité d'application industrielle	Oui:	Revendications	1-21
	Non:	Revendications	

2. Citations et explications

**voir feuille séparée**

**RAPPORT D'EXAMEN**  
**PRELIMINAIRE INTERNATIONAL - FEUILLE SEPAREE**

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L'état de la technique le plus proche est delimité par la forme en deux partie de la revendication 1.

Le but de l'invention est de proposer un microactionneur selon le préambule de la revendication 1 réactivable en sens invers ou pour repeter une action.

Ce but est atteint selon la partie caractérisante de la revendication 1 en prevoyant des moyens d'evacuation des gaz de la chambre principale, permettant ainsi de repositionner la membrane en position initiale.

Il n'y a aucune suggestion dans l'art antérieur disponible de prévoir des moyens d'evacuation des gaz de la chambre principale. Notamment le document WO 98/22719, cité dans la partie introductive de la demande, n'est prévu que pour un seul actionnement car la membrane formant paroi de la chambre principale sert à disloquer un fluid; une fois le fluid transferé il n'y a pas de besoin de repositionner la membrane.

Les revendications independentes 16, 18 et 19 sont concernées avec des microsystemes incluant un microactionneur selon l'invention, et par consequent relèvent de la même idée inventive.

La revendication independente de procédé concerne la mise en oeuvre d'un microactionneur selon l'invention.

Translation

PATENT COOPERATION TREATY

PCT/FR2003/003404



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference B. 1201 PCT-PI/6	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/003404	International filing date ( <i>day/month/year</i> ) 18 novembre 2003 (18.11.2003)	Priority date ( <i>day/month/year</i> ) 19 novembre 2002 (19.11.2002)
International Patent Classification (IPC) or national classification and IPC F15B 15/19		
Applicant SNPE MATERIAUX ENERGETIQUES		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.  <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  These annexes consist of a total of _____ sheets.
3. This report contains indications relating to the following items:  I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 06 avril 2004 (06.04.2004)	Date of completion of this report 04 October 2004 (04.10.2004)
Name and mailing address of the IPEA/EP  Facsimile No.	Authorized officer  Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR2003/003404

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
pages \_\_\_\_\_ 1-29 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages \_\_\_\_\_ 1-21 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
pages \_\_\_\_\_ 1/5-5/5 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.  
These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1-21	YES
	Claims		NO
Inventive step (IS)	Claims	1-21	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-21	YES
	Claims		NO

### 2. Citations and explanations

The two-part form of claim 1 restricts the invention from the closest prior art.

The object of the invention is to provide a micro-actuator of the type defined in the preamble of claim 1, it being possible to reactivate said micro-actuator in the reverse direction or to repeat an action.

According to the characterising part of claim 1, this object is attained by providing gas discharge means from the main chamber, so that the membrane can be reset in its initial position.

The available prior art does not suggest providing gas discharge means from the main chamber. Document WO 98/22719, in particular, which is cited in the introductory part of the application, provides a single actuation because the membrane that forms the wall of the main chamber is used to displace a fluid; once the fluid has been transferred, there is no need to reset the membrane.

Independent claims 16, 18 and 19 relate to microsystems that include a micro-actuator according to the invention,

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International application No.

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and therefore involve the same inventive concept.

The independent process claim relates to the use of a micro-actuator according to the invention.